



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

C10-4-5
Job Sheet 198345



Part No: C10-4-5

Job Qty: 5 pcs

Part Name: Lower Lock Roller Shaft



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 7/25/19

Job Tracking No:

Created By: Jennifer Renwick

Due Date: 9/5/19

Type: Stock

Description:

Note: DWG C10-4-5 Rev. 1A IPP Rev. A 18.04.12 new issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Hrs	Run Hrs	Workcenter/Supplier	Lead Time	Sign-off
110	Conventional Lathe - 1	5 pcs		9/5/19	0.00	1.00	Conventional Lathe - 1		
							Conventional Lathe - 2		
120	QC 2	5 pcs		9/5/19	0.00	0.00	QC 2 - 1		
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 57		
							QC 2 - 62		
							QC 2 - 63		19/7/19
							QC 2 - 8		
							QC 2 - 66		
							QC 2 - 64		
							QC 2 - 65		
							QC 2 - 5		
							QC 2 - 71		
							QC 2 - 73		
							QC 2 - 69		
130	QC 8	5 pcs		9/5/19	0.00	0.00	QC 8 - 12		
							QC 8 - 14		
							QC 8 - 17		
							QC 8 - 20		
							QC 8 - 25		
							QC 8 - 3		



Container No: S201340



Part: C10-4-5

Job No: 198345

Serial No/Batch: S201340

Revision: 1A

Inspector:

Exp Date:

Instructions:

Date: 07/29/19

Plex 7/25/19 8:53 AM Dart.Renwick.Jennife

Plex 7/25/19 8:53 AM Dart.Renwick.Jennife

[Dart Hawkesbury] Job Sheet - Renwick, Jennifer

GA 194

QC 21 - SA - 70

QC 21 - SA - 53

SEP 16 2019

70
9-89

Part Op 110 - (Manufacture as per dwg)1-Machine as per DWG. 2-Deburr

Descriptions: 120 - (QC2- Inspect parts off machine FAI/FAIB)

130 - (QC8- inspect parts - second check)

135 - (Outside process - Heat Treat) 1-Issue P/O to Melcor; P/O 44223 RC 44-46 2-Bead blast 3-Certificate of Conformity is required

137 - (Receive & Inspect for Damage & Mat'l Certs)

138 - QC6- All purchased or subcontracted products

140 - (Outside Processing - Nickel Plate)-Issue P/O to Groupe Altech: P/O 44304 -Nickel plate, QQ-N-290, Class 2, Grade E or F -Nickel Plate .0004-.0006 -Bake after plating -Certificate of Conformity is required

150 - (Receive & Inspect for Damage & Mat'l Certs)

160 - (QC6- All purchased or subcontracted products)

210 - (Identify as per dwg & Stock Location:

220 - QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M4140H-R0.500	4140 Round Bar 0.500"	.6750 ft (.135 ea)	110-Conventional Lathe - 1	5043711

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Conventional Lathe - 1	M4140H-R0.500	1	111	0

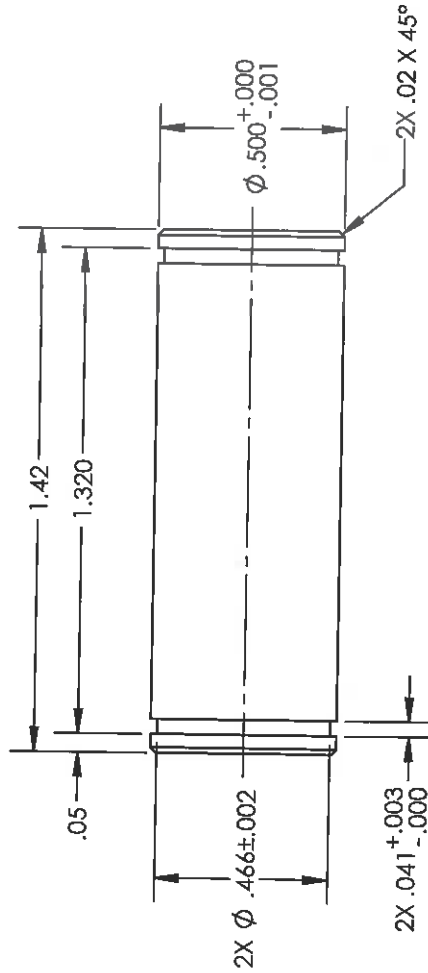
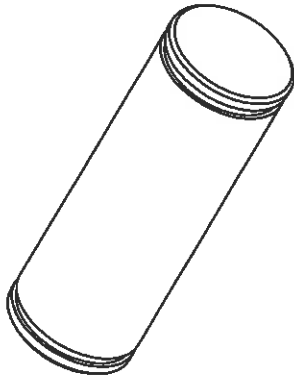
Part Specifications

Specifications could not be found.

Plex 7/25/19 8:53 AM Dart.Renwick.Jennifer

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REVISIONS			
REV	ECR	DESCRIPTION	DATE
1		AS DRAWN BY CANAM.	4/30/2013
1A	14-0115	CHD TITLE BLOCK WAS RED BARN IS DART. ADDED BAG & LABEL NOTE. CHD TOLERANCE ON NON-CRITICAL DIMENSIONS.	8/8/2014
			CFS
			DPD
			RW



04985

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 198345

- NOTES:
- NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.
 - BAG & LABEL WITH BATCH NUMBER.



TITLE LOWER LOCK ROLLER SHAFT

DWG NO. C10-4-5		REV 1A	
MATERIAL 4140		DRAWN BY: CANAM	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPROVED: <i>D. Weil</i>	
XXX ± .005		TREAT HRC 44-46	
XX ± .01		FINISH SEE NOTE 1	
X ± .1		SPEC USED ON MODEL	
1. BREAK ALL SHARP EDGES .015 x 45°		2. DIMENSIONAL UNITS APPLY AFTER PLATING	
ASSY QTY	ASSY QTY	UNIT QTY	Part #
		1	C10-4-5
Description		B/O INFORMATION OR SPECIFICATIONS	
LOWER LOCK ROLLER SHAFT			
Material		4140	
Scale		2:1	
Date		4/26/2002	
Sheet		1 OF 1	



Dart Aerospace Ltd.
1270 Aberdeen St
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K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB044223



Supplier: ATL002-VC
Atlantic Heat Treat 2001
401 Frankcom
Ajax
ON
L1S 1R4 Canada
Phone: 866 257 6395

Attention: Ananth, Nimmy

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB044223

PO Date: 8/7/19

Due Date: 8/14/19

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	197868	C10-9-5	Latch Pin (Outsource process - Heat Treat)1-Issue P/O RC 44-46 Material 4140 2-Bead blast 3- Certificate of Conformity is required	Firmed	-	8/14/19	12 pcs	0 pcs	12 pcs	\$6.25/pcs	\$75.00
2	198345	C10-4-5	Lower Lock Roller Shaft (Outsource process - Heat Treat)1-Issue P/O RC 44-46 Material 4140 2-Bead blast 3- Certificate of Conformity is required	Firmed	-	8/14/19	5 pcs	0 pcs	5 pcs	\$15.00/pcs	\$75.00
3	197392	RBA9963	Barrel Wrench 1-Issue P/O; RC 36-40 2-Bead blast 3-Material type; 4140 4- Certificate of Conformity is required	Firmed	-	8/14/19	1 pcs	0 pcs	1 pcs	\$170.00/pcs	\$170.00

12 X AUG 15 2019
5202699

5 X AUG 15 2019
5201340



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PURCHASE ORDER

POHB044223



Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	196721	RB6795633-2	Socket 1-Issue P/O; Heat treat RC 48-52 2-Bead blast 3-Material type; O1 4-Certificate of Conformity is required	Firmed	-	8/14/19	5 pcs	0 pcs	5 pcs	\$15.00/pcs	\$75.00
										Grand Total:	\$395.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 8/15/19 11:03 AM Dart.Guerin.Kimberley

Atlantic Heat Treating (2001) Ltd

Order No.: 168993

Ship Date: 12/8/2019

Shipping Ticket

Sold To:

1448

DART AEROSPACE LTD.
1270 ABERDEEN ST

HAWKESBURY ON KGA 1K7

Page 1 of 1

Ship To:

165875

DART AEROSPACE LTD.
1270 ABERDEEN ST

HAWKESBURY ON KGA 1K7

Purchase Order Number	Packing List No	Customer Job No	Route	Carrier
POHB044223				

Quantity	Part No. / Part Name / Part Description	Pounds
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5 PCS MATERIAL 4140
SANDRI AST AND HFAT TRFAT TO 44-46RC
C OF C, PRT# C10-4-5, JOB# 198345

Container Type	# Of Containers	Cust Cont Id	Container Type	# Of Containers	Cust Cont Id
BOX	1				

NOTICE: OUR LIABILITY IS LIMITED TO OUR INVOICE CHARGES ONLY

Shipped Complete

Quantity Shipped:

5

Pounds Shipped:

1.00

F - 7891 0582 3733

RECEIVED

AUG 14 2019

DART AEROSPACE LTD.AB
46RC

8-13-19

Order No.: 168993

Shipped Complete

Quantity Shipped:

5.00

Received By:

Date:

Pounds Shipped:

1.00

Sold To: DART AEROSPACE LTD.

Shipped ON: 08/12/2019

Certification

Date: 08/13/2019

Entry Date: 08/12/2019

Page: 1 of 1

To:DART AEROSPACE LTD.
1270 ABERDEEN ST

Purchase Order No.: POHB044223 ✓

Packing List No.:

HAWKESBURY ON K6A 1K7

Material: 4140

We are pleased to provide you with the following Certificate of Compliance.

Quantity	Part Number / Part Name / Part Description	Pounds
5	5 PCS MATERIAL 4140 SANDBLAST AND HEAT TREAT TO 44-46RC C OF C, PRT# C10-4-5, JOB# 198345	1

Insp. Type	Scale	Minimum	Maximum	Number	Other
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Customer Requirements:

Harden rockwell

Results:

Harden ROCKWE 44. 46. 46. TESTED AS PER SAMPLING PLAN

HEAT TREATED TO 46 RC AS PER CUSTOMER REQUEST

STATEMENT OF LIMITED LIABILITY (PLEASE READ CAREFULLY): ALL WORK IS ACCEPTED SUBJECT TO THE FOLLOWING CONDITIONS: It is recognized that even after employing all the scientific methods known to us, hazards still remain in metal treating. THEREFORE, OUR LIABILITY SHALL NOT EXCEED TWICE THE AMOUNT OF OUR CHARGES FOR THE WORK DONE ON ANY MATERIAL (FIRST TO REIMBURSE FOR THE CHARGES AND SECOND TO COMPENSATE IN THE AMOUNT OF THE CHARGES), EXCEPT BY WRITTEN AGREEMENT SIGNED BY THE METAL TREATER. THE CUSTOMER, BY CONTRACTING FOR METAL TREATMENT, AGREES TO ACCEPT THE LIMITS OF LIABILITY AS EXPRESSED IN THIS STATEMENT TO THE EXCLUSION OF ANY AND ALL PROVISIONS AS TO LIABILITY ON THE CUSTOMER'S OWN INVOICES, PURCHASE ORDERS OR OTHER DOCUMENTS. IF THE CUSTOMER DESIRES HIS OWN PROVISIONS AS TO LIABILITY TO REMAIN IN FORCE AND EFFECT, THIS MUST BE AGREED TO IN WRITING, SIGNED BY AN OFFICER OF THE TREATER, IN SUCH EVENT, A DIFFERENT CHARGE FOR OUR SERVICES REFLECTING THE HIGHER RISK TO TREATER, SHALL BE DETERMINED BY THE TREATER AND CUSTOMER. THE TREATER MAKES NO EXPRESS OR IMPLIED WARRANTIES AND SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, AS TO THE PERFORMANCE CAPABILITIES OF THE MATERIAL AS HEAT TREATED, OR THE HEAT TREATMENT. THE AFOREMENTIONED LIMITATION OF LIABILITY STATED ABOVE IS SPECIFICALLY IN LIEU OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND OF ANY OTHER SUCH OBLIGATION ON THE PART OF THE TREATER. No claim for shortage in weight or count will be entertained unless presented within five (5) working days after receipt of materials by customer. No claim will be allowed for shrinkage, expansion, deformity, or rupture of material in freeing or straightening, except by prior written agreement, as above, nor in any case for rupture caused by or occurring during subsequent grinding. Whenever we are given material with detailed instructions as to treatment, our responsibility shall end with the carrying out of those instructions. Failure by a customer to indicate plainly and correctly the kind of material (i.e., proper alloy designation) to be treated, shall cause an extra charge to be made to cover any additional expense incurred as a result thereof, but shall not change the limitation of liability stated above. Customer agrees there will be no liability on the treater in contract for any special, indirect or consequential damages arising whatsoever, including but not limited to personal injury, property damage, loss of profits, loss of production, recall or any other losses, expenses or liabilities allegedly occasioned by the work performed on the part of the treater. It shall be the duty of the customer to inspect the merchandise immediately upon its return, and in any event claims must be reported prior to the time that any further processing, assembling or any other work undertaken. OUR LIABILITY TO OUR CUSTOMERS SHALL CEASE ONCE ANY FURTHER PROCESSING, ASSEMBLING OR ANY OTHER WORK HAS BEEN UNDERTAKEN ON SAID MATERIAL. No agent or representative is authorized to alter the above conditions, except by writing duly signed by an officer of treater.



RYAN WHITE
QUALITY CONTROL
ATLANTIC HEAT TREATING 2001 LTD



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB044304



REVISED

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

Attention: Grenon, Sylvie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB044304

PO Date: 8/21/19

Due Date: 8/28/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Via: Ground

Pynt Terms: Net 60

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	198345	C10-4-5	Lower Lock Roller Shaft (Outside Processing - Nickel Plate)-Issue P/O; -All noncertified parts specifying a finish of Nickel Plating per QQ-N-290, or parts with drawings that are missing a specification Can be Nickel Plated per ASTM B733 Type 4/5, SC0- SC4 or MIL-C-26074 Class 1/2 -Material type; -Heat treat must be carried out to specified hardness if noted on the drawing. -Plating thickness must be carried out as specified on the drawing. -Certificate of Conformity is required	Firmed :-		8/28/19	5 pcs	0 pcs	5 pcs	\$15.00/pcs	\$75.00

X5

SEP 11 2019

DP

S201340



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB044304



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
2	97868	C10-9-5	Latch Pin (Outside Processing - Nickel Plate)-Issue P/O; -All noncertified parts specifying a finish of Nickel Plating per QQ-N-290, or parts with drawings that are missing a specification Can be Nickel Plated per ASTM B733 Type 4/5, SC0-SC4 or MIL-C-26074 Class 1/2 -Material type; 4140 -Heat treat must be carried out to specified hardness if noted on the drawing. -Plating thickness must be carried out as specified on the drawing. -Certificate of Conformity is required	Firmed		8/28/19	11 pcs	0 pcs	11 pcs	\$15.00/pcs	\$165.00
SEP 11 2019											
5202699											
DP											

Grand Total: \$240.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 9/10/19 2:26 PM Dart.Guerin.Kimberley

**Certificat de Conformité / Certificate of Compliance**
(021800-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
Tel: 514-335-3666 Fax: 514-335-3868
www.groupaltech.com

Bon de Livraison / Packing Slip**021800 - 1**

Livré à / Ship to

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON, K6A1K7
CANADA
Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON, K6A1K7
CANADA
BUYER:

Date expédition Ship date		Créé Par Generated By		Transport / No de Compte Courier / Acc. No.		Bon de commande Client Customer Purchase Order No.			
05-Sep-2019		Jigar Patel				POHB044304			
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Quantités / Quantities		À venir/ Back Order	
	Job # / Ref #					Qté NC/ NC Qty	Qté Scrap/		
1	C10-4-5 Rev.	C10-4-5 E-NIC STEEL 200 [E-NICKEL STEEL 200] NICKEL PLATING PER QQ-N-290 OR ASTM B733 TYPE4/5 SCO-SC4 OR MIL-C-26074 CLASS 1/2 0.0004 " - 0.0006 " BAKE AFTER PLATING	E-NICKEL-200 CH	5	5	0	0	0	
2	C10-9-5 Rev.	C10-9-5 E-NIC STEEL 200 [E-NICKEL STEEL 200] NICKEL PLATING PER QQ-N-290 OR ASTM B733 TYPE4/5 SCO-SC4 OR MIL-C-26074 CLASS 1/2 0.0004 " - 0.0006 " BAKE AFTER PLATING	E-NICKEL STEEL CH	11	11	0	0	0	
3	BAKING CHARGE Rev.	BAKING CHARGE 01 -BAKING, HYDROGEN EMBRITTLEMENT RELIEF	BAKE MIN-CHG	1	1	0	0	0	

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SEP 09 2019
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DART AEROSPACE LTD.

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SEP 09 2019
DART AEROSPACE LTD.

Notes Additionnelles / Additional Notes

2 WHITE PACKAGES

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

JP 347

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
Our financial and legal responsibility will not be higher than the amount of invoice.